

IN THE CLAIMS

Please amend the claims as follows:

1. (currently amended) An illumination system for illuminating a display device, comprising: a light-emitting panel 41; and a light source for coupling light into the light-emitting panel 41, said light source including a low-pressure mercury-vapor discharge lamp 45; 24, characterized in that the light source further comprises a plurality of light-emitting diodes 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 8

2. (currently amended) An illumination system as claimed in claim 1, characterized in that the light-emitting diodes ~~are configured to~~ produce a light emission wavelength for selectively increasing the color temperature of the light emitted by the light source.

3. (original) An illumination system as claimed in claim 2,  
characterized in that the color temperature of the light emitted by  
the light source can be set so as to range from 6,000 K to 11,000  
K.

5. (currently amended) An illumination system as claimed in claim 1, characterized in that each one of the light-emitting diodes  $D_1, D_2, \dots, D_n$  ~~is configured to~~ produces a luminous flux of at least 5 lm.

6. (currently amended) An illumination system as claimed in claim 1, characterized in that the illumination system comprises control electronics for changing the luminous flux of the light-emitting diodes  $45_1-45_n$ ,  $46_1-46_n$ ,  $47_1-47_n$ ,  $48_1-48_n$ ,  $49_1-49_n$ ,  $50_1-50_n$ .

7. (currently amended) A display device comprising: a liquid crystal display device optically coupled to an illumination system as claimed in claim 1.

8. (new) An illumination system for illuminating a display device,  
comprising:

S:\krnl010089050103.pdf.DOC

a light source arranged to coupled light from the light source into the light-emitting panel, wherein the light source comprises;

at least one electric discharge lamp, and

at least one light emitting diode chosen so as to set the color temperature of the light emitted by the light source independently of the physical structure of the light source.

93  
cont. 9. (new) The illumination system as claimed in claim 8 wherein said at least one light emitting diode has a light emission wavelength that is higher than the light emission wavelength of the electric discharge lamp, thereby to set the color temperature of the light emitted by the light source to a level above that of the discharge lamp alone.

10. (new) The illumination system as claimed in claim 8 wherein the at least one electric discharge lamp includes first and second electric discharge lamps physically separated from one another.

11. (new) The illumination system as claimed in claim 8 wherein the at least one light emitting diode provides light at a predominantly blue light emission wavelength.

12. (new) The illumination system as claimed in claim 8 further comprising control electronics for selectively setting the luminous flux of the at least one light emitting diode dependant upon the color temperature of the ambient light, or under control by a user of the illumination system.

13. (new) The illumination system as claimed in claim 8 wherein the at least one electric discharge lamp comprises first and second low pressure mercury vapor discharge lamps located at opposite sides of the light emitting panel and the at least one light emitting diode comprises at least first and second light emitting diodes also located at opposite sides of the light emitting panel.

14. (new) The illumination system as claimed in claim 8 further comprising control electronics for selectively setting the luminous flux of the at least one light emitting diode and/or the luminous flux of the at least one electric discharge lamp dependant upon the illumination level of an image displayed by the display device.

15. (new) The illumination system as claimed in claim 8 wherein the at least one light emitting diode comprises a plurality of light emitting diodes mounted on a metal core printed circuit board.

16. (new) The illumination system as claimed in claim 8 wherein the light emitting panel includes a light-mixing chamber housing the at least one electric discharge lamp and a micro-grooved bar into which light from the at least one light emitting diode is coupled and in turn emitted by the micro-grooved bar into the light emitting panel.

17. (new) The illumination system as claimed in claim 8 wherein the at least one electric discharge lamp includes first and second electric discharge lamps and the at least one light emitting diode comprises at least first and second light emitting diodes, and

the light emitting panel includes first and second light-mixing chambers housing the first and second electric discharge lamps, respectively, and

the first and second light emitting diodes contact the first and second light-mixing chambers, respectively, so as to project their light into the light-emitting panel.

18. (new) The illumination system as claimed in claim 8 wherein the at least one electric discharge lamp includes only one single low pressure mercury vapor discharge lamp.